
SOFTWARE SUSTAINABILITY AND ACQUISITION REFORM



U.S. AIR FORCE

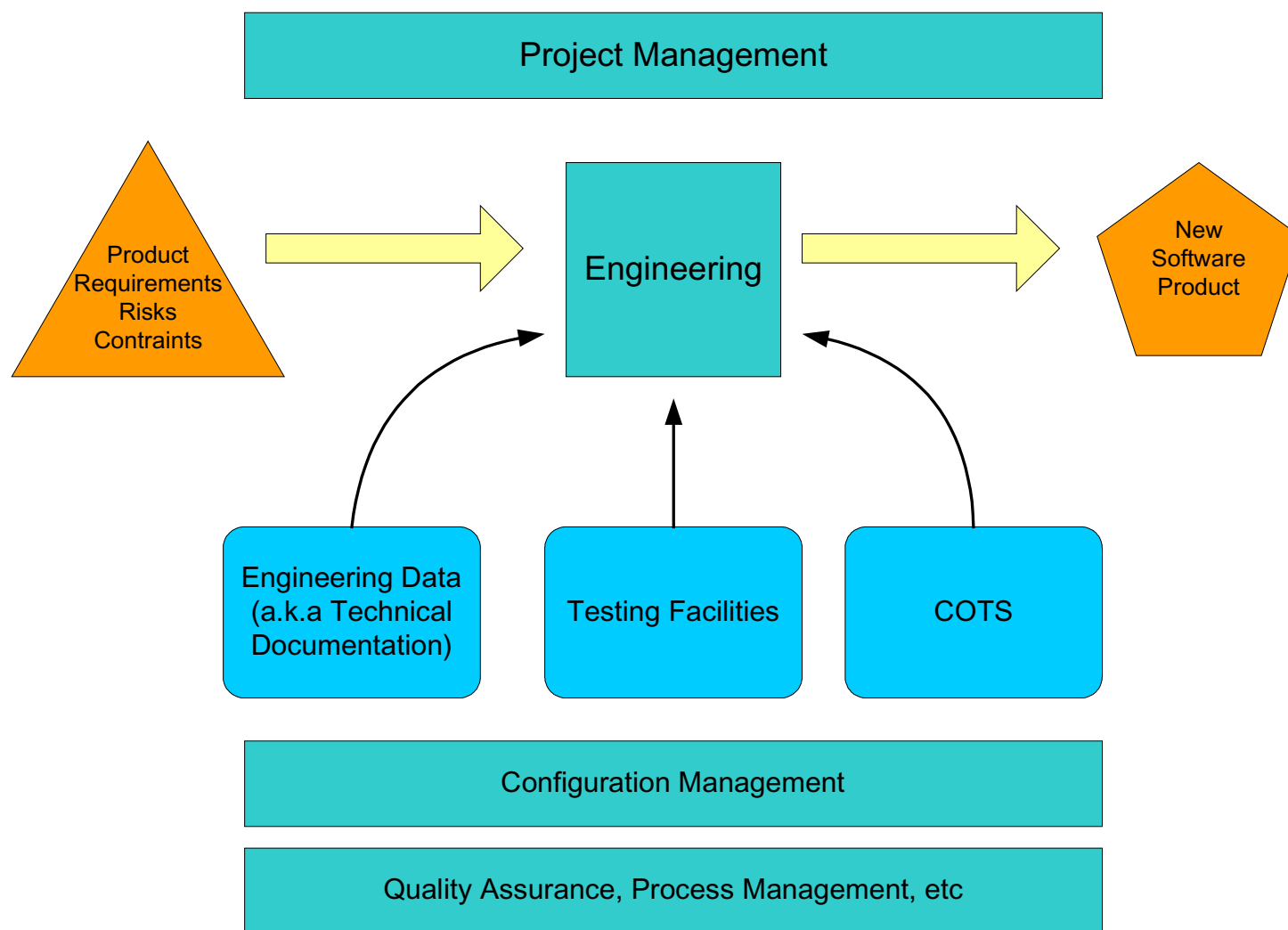
**A VIEW FROM
THE BOTTOM**

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Integrity - Service - Excellence

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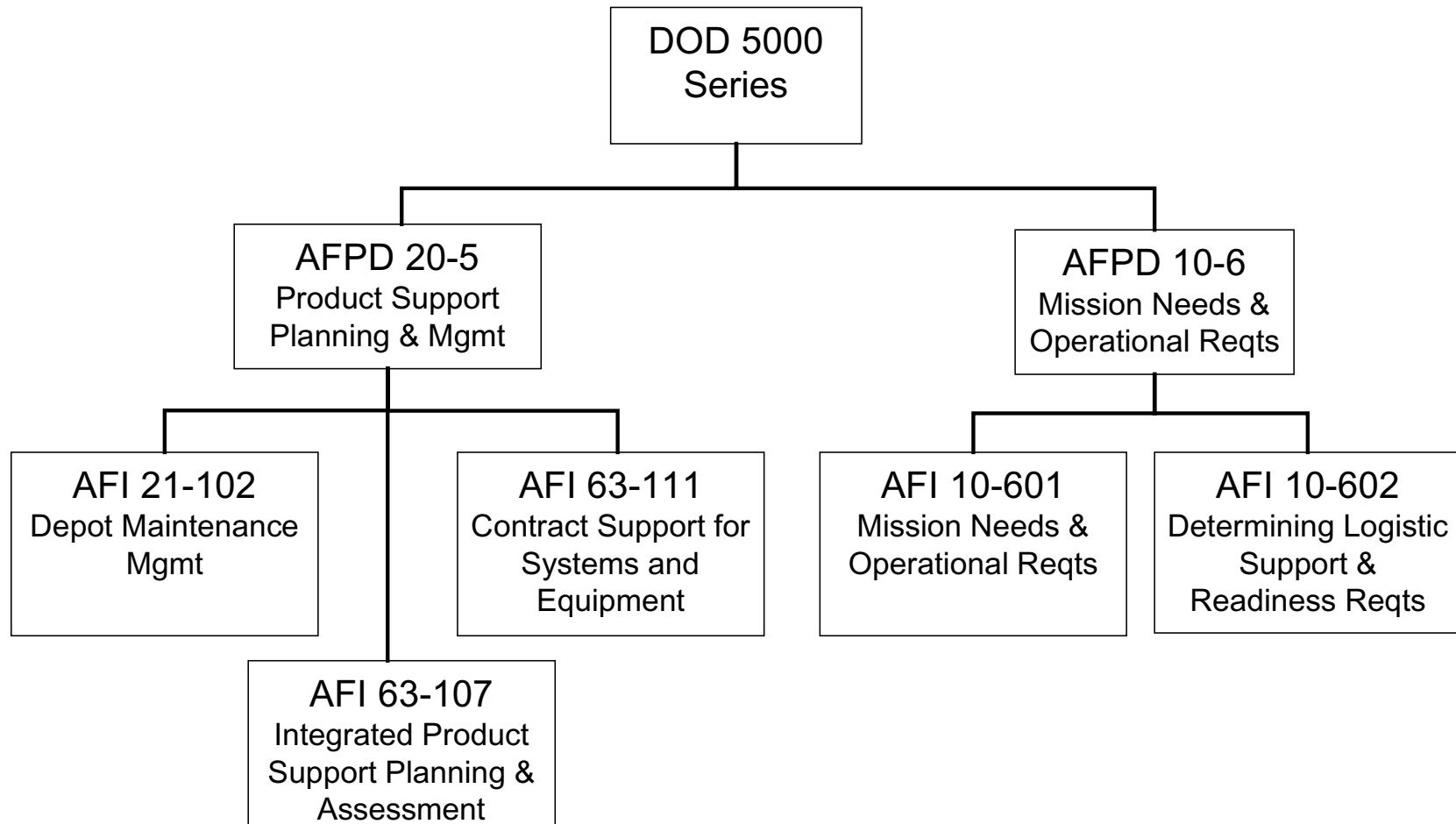
Software Acquisition Fact of Life



**WITH SUFFICIENT DEVELOPMENT TIME AND
RESOURCES, SOFTWARE CAN ALWAYS BE
PRODUCED WITH HIGH QUALITY THE FIRST TIME**

**WE HAVE KNOWN FOR 30 YEARS HOW TO
DEVELOP SOFTWARE**

Logistics Planning



Policy and Principles



FLEXIBLE

**REDUCED
CYCLE TIME**

**PERFORMANCE
BASED**

TAILORED

**TOTAL SYSTEM
APPROACH**

INNOVATIVE

**DECENTRALIZED
RESPONSIBILITY**

**SYSTEM
ENGINEERING**

Software Acquisition – What Happens



- **RESOURCES**
- **COTS**
- **SUSTAINMENT**
- **TOO MUCH HELP FROM WELL MEANING,
BUT UNINFORMED PEOPLE**

Observations



- **NO POLICY ON SUSTAINMENT**
- **NO REQUIREMENT TO VERIFY SUSTAINMENT**
- **ACQUISITION POLICY DOESN'T REQUIRE SOFTWARE FOCUS**
- **TOO MANY OPPORTUNITIES TO DELAY SUSTAINMENT**
- **TAILORING TRANSLATES TO ELIMINATE**

What Should We Do?



- **MANAGE SOFTWARE AS A CRITICAL ACQUISITION ELEMENT**
- **ACQUIRE SUSTAINMENT CAPABILITY FOR TOTAL SYSTEM**
- **TREAT COTS AS ANOTHER SYSTEM REQUIRING SUPPORT**

TEAM TINKER



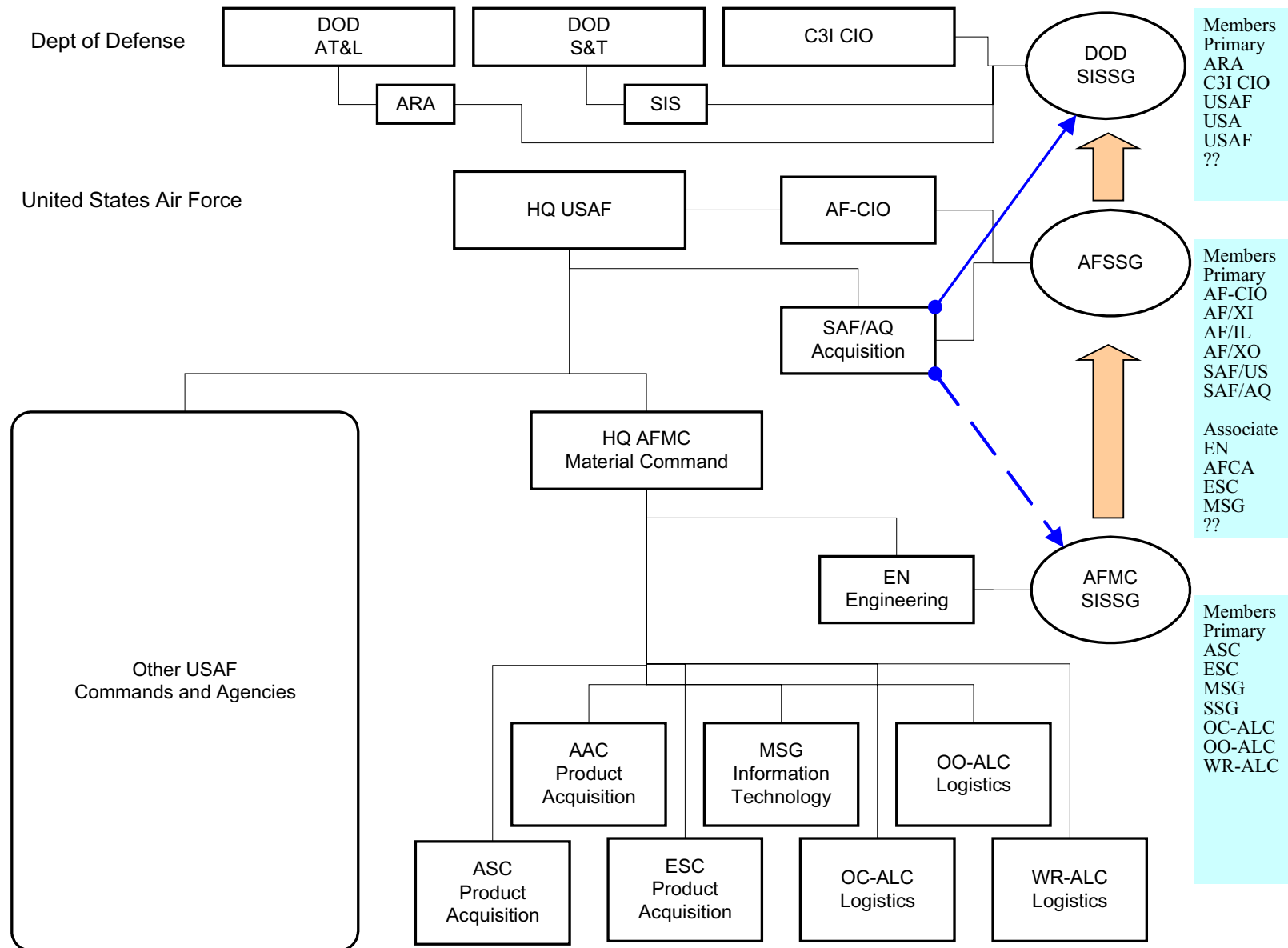
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Constant Wind Shifts



- **DOD 5000 Series documents undergoing regular changes. General trend to less guidance and more “flexibility”**
 - We tend to see this as more opportunities to mess up
 - Latest and most radical change is near release
 - Leverage Flexibility More Training & Experience
- **See disconnects between DOD and Service Instructions**
 - Not much time for high level changes to filter into lower level practice
- **A lot of old practice still done due to older more experienced staff still around. As they go problems tend to show up. Due to civilian demographics risk is to see more problems develop**
 - Although there is growing low-level pushes for process
- **Software is largely ignored in major Service policy instruments. Been a major issue of debate over the years**

Software Cross Cutting Issues Flow



Concerns



- **AFMC SSSG has focused on Weapon System software.**
- **AFSSG & DOD SSSG tend to focus on IT software and some Systems Engineering**
- **HQ & DOD SSG idea is new organizational formations. Relationships in flux. AFMC SSSG has existed in several forms over many years.**
 - **Lesson learned: SSGs prosper when software is hot topic otherwise tend to fade away**
- **SSGs are advisory groups. They do not make policy.**

Recent Topics



- **AFMC SISSG**
 - **S/W Sustainment Questions for SECAF**
 - **Programming Languages**
 - **Training**
 - **Staffing**
 - **Quality of S/W Product Engineering Data**
 - **System Architecture – Affordable, Sustainable, Long lasting**
 - **SMARTS & PM Sustainment Indicators**
 - **ASC Acquisition S/W Process Guidebook**
 - **Group Organization & Long Term Strategy**
- **AFSSG**
 - **Getting organized**
- **DOD SISSG**
 - **CMMI**
 - **Acquisition Training**
 - **Program Cost Metrics**
 - **Linking 5000 & 8500 series**
 - **Independent Expert Reviews**